TREATING UP TO 25 MILLION GALLONS PER DAY

OCWD Selects AV® to Build Nation's Largest Ion Exchange Treatment Plant for PFAS at YLWD

BACKGROUND

Established in 1933, the Orange County Water District (OCWD) is recognized globally as a leader in innovative water management, overseeing three of southern California's most critical water supplies: the Santa Ana River, Orange County Groundwater Basin, and the Groundwater Replenishment System. OCWD serves more than 2.5 million residents in north and central Orange County through 19 water agencies and is home to the Philip L. Anthony Water Quality Laboratory – the state's first public agency lab certified to analyze for per and polyfluoroalkyl substances (PFAS) in drinking water.

Following an adjustment to California's PFAS regulations in 2020, OCWD conducted a system-wide audit and found Perfluorooctanesulfonic acid (PFOA) and Perfluorooctanesulfonic sulfonate (PFOS) at levels exceeding advisory levels in the Orange County Groundwater Basin, which provides 77 percent of the total water supply throughout the district. OCWD moved swiftly to protect its residents and selected Aqueous Vets® (AV®) to build 27 LowPro® ion exchange (IX) resin systems for PFAS treatment.

Yorba Linda Water District (YLWD) in Placentia, CA received 11 of the 27 systems after detecting PFAS contamination in all 10 of its groundwater wells. Together with OCWD and Tetra Tech, AV provided design assistance, manufactured, and delivered a solution capable of treating up to 25 million gallons per day, making it the largest IX PFAS treatment plant in the nation.

PROJECT LOCATION
Yorba Linda, CA

PROJECT TIMEFRAME
June 2020 – July 2021

END USER
Yorba Linda Water District

DESIGN ENGINEER
Tetra Tech

PROJECT TYPE
Design, Manufacture, Supply

AV® SCOPE OF WORK
$3,850,000

GENERAL CONTRACTOR
Pacfic HydroTech Corporation

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AqueoUS VETS®

KEY SYSTEM DESIGN & OPERATIONAL PARAMETERS	VALUE
Number of Systems/Vessels per System	11/2
Operating Configuration	Parallel/Lead-Lag
Media Capacity/Volume per Vessel	420 ft^3
Design Flow Rate (Per System/Total)	1,578 gpm/25 MGD
Hydraulic Loading	14.0 gpm/ft^2
Empty Bed Contact Time per Vessel	2.0 Minutes
Underdrain	Septa/External Ring Header
Overall System Height to Top of Pipe	14’-10”

AQUEOUS VETS® PROJECT SCOPE

AV designed, manufactured, and delivered eleven (11) PF12-520 LP® IX Resin Systems.

AqueoUSVETS®